For Research Use Only

Phospho-MEK1 (Thr292) Monoclonal antibody

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Antibodies | ELISA kits | Proteins
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Catalog Number:67873-1-Ig 1 Publications

Basic Information

Catalog Number:
67873-1-Ig

Size:
100ul , Concentration: 1000 μg/ml by Nanodrop;

Source:
Mouse

Isotype:
IgG1

GenBank Accession Number:
BC139729

GeneID (NCBI):
5604

Full Name:
mitogen-activated protein kinase kinase 1

Calculated MW:
43 kDa

Observed MW:
40-50 kDa

Purification Method:
Protein G purification

CloneNo.:
2D7A8

Recommended Dilutions:
WB 1:2000-1:10000

Applications

Tested Applications:
FC, WB, ELISA

Cited Applications:
WB

Species Specificity:
Human, mouse, rat

Cited Species:
rat

Positive Controls:

WB : NIH/3T3 cells, A431 cells, Calyculin A treated HeLa cells, Nocodazole treated A431 cells, Calyculin A treated NIH/3T3 cells, Calyculin A treated HSC-T6 cells

Background Information

MAP2K1 encodes MAPK1, also known as MEK1. MEK1 variants can enhance MEK1 expression and ERK1 phosphorylation that together lead to continuous activation of MEK/ERK signaling pathway. MEK1 bind directly to ERK2 through a region in the N terminus of MEK. In addition, a proline-rich (PR) regulatory sequence in MEK is also involved in MEK-ERK association and signal propagation. The coupling between MEK1 and ERK2 is enhanced through phosphorylation on S298 in the MEK1 PR region, whereas phosphorylation on MEK1 T292 releases the complex. MEK1 T292 is a substrate of ERK2, but the site is also phosphorylated at a basal level when ERK2 is inhibited, suggesting several regulators of this site . Although the S298 site in MEK2 has been conserved, it lacks the T292 phosphorylation site, and it is not a substrate of PAK1. (PMID: 31972311, PMID: 17928366, PMID: 22177953)

Notable Publications

Author	Pubmed ID	Journal	Application
Yin Wang	36693549	J Ethnopharmacol	WB

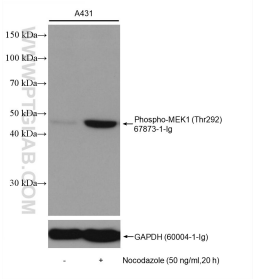
Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

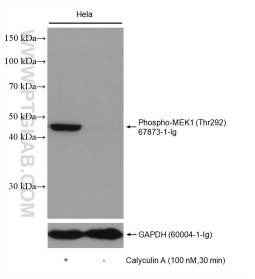
*** 20ul sizes contain 0.1% BSA

For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
W: ptglab.com

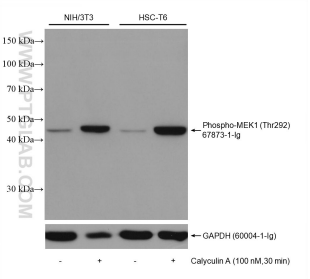
Selected Validation Data



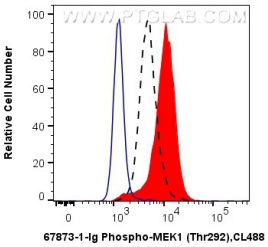
Non-treated A431 and Nocodazole treated A431 cells were subjected to SDS PAGE followed by western blot with 67873-1-Ig (Phospho-MEK1 (Thr292) antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with GAPDH antibody as loading control.



Non-treated HeLa and Calyculin A treated HeLa cells were subjected to SDS PAGE followed by western blot with 67873-1-Ig (Phospho-MEK1 (Thr292) antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with GAPDH antibody as loading control.



Non-treated cells and Calyculin A treated cells were subjected to SDS PAGE followed by western blot with 67873-1-Ig (Phospho-MEK1 (Thr292) antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with GAPDH antibody as loading control.



1X10^6 HeLa cells untreated (dashed lines) or Calyculin A (red) treated were intracellularly stained with 0.13 ug Anti-Human Phospho-MEK1 (Thr292) (67873-1-Ig, Clone:2D7A8) and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L) at dilution 1:1000, or 0.13 ug Control Antibody (blue). Cells were fixed with 4% PFA and permeabilized with 90% MeOH.